

From: [PETERSON Jenn L](#)
To: [Joe Goulet](#); [Rene Fuentes](#); [Jeremy Buck](#); [Chris Thompson](#); [Burt Shephard](#); [Dana Davoli](#); [Robert.Neely@noaa.gov](#); [Robert Gensemer](#); [Ron.Gouguet@noaa.gov](#); [POULSEN Mike](#); [MCCLINCY Matt](#)
Cc: [ANDERSON Jim M](#); [Chip Humphrey](#)
Subject: Clam Data Analysis
Date: 10/25/2006 03:13 PM

[attachment "SCRA_R2Benthic_20060626_JPAnalysis_ReducedVersion.xls" deleted by Chip Humphrey/R10/USEPA/US]
[attachment "ClamTotalPCBs data summary_DEQ_JP.ppt" deleted by Chip Humphrey/R10/USEPA/US]

Hi All-

Here is the clam data I analyzed for total PCBs. I have included my spreadsheets and a summarized version as Powerpoint slides. I could not send all the benthic data because the file would have been too big (all that is included here is for total PCBs). The same data is in the spreadsheets (including the graphs), you just have to move around a little to find them. By the way "DS" means downstream and "UpS" means upstream. It would be great to have the data displayed this way for all the other analytes. It may be best to pull the data into GIS and use spatial maps the same way. What is particularly interesting is the difference between the lab and field clam data. I would expect the field data to be consistently higher than field collected data (reasons stated below). However, there are several sites where the field data is *significantly higher* than the laboratory data like Willamette Cove. I think this points to a field condition that varies from the static laboratory environment, and is likely a water source (TZ water or surface water) or a sediment re-suspension phenomenon.

The laboratory clams are always lower than the field collected clams, which I would expect, both for the reasons stated above and because I don't think the laboratory clams had enough time to reach equilibrium in the 28 day laboratory tests. The equilibrium issue is also present for the laboratory *Lumbriculus*. The Corps. have actually developed correction factors to better equilibrate laboratory data with correct uptake time. For example, it has been show that for high Kow chemicals it can take more like 60-90 days (something like that, I am pulling off the top of my head) for full uptake to occur. It is good to keep in mind that the laboratory data may underestimate uptake because of the length of the test.

I hope this helps - I sure found it interesting.

-Jennifer

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